

# National Animal Identification System (NAIS)

## *2004 NAIS Cooperative Agreements Field Trial Project Summaries*

*April 2005*



**United States Department of  
Agriculture**

**Animal Plant Health Inspection  
Service**

**California Dept of Food and Agriculture**  
Southwest Premises Registration and Animal Tracking Project

**CA number:** 05-9106-0943-CA  
**Amount of CA:** \$752,000.00  
**Signature Date:** Nov 15, 2004  
**Coordinator:** California Dept of Food and Agriculture  
**Cooperators:** Oregon Dept. of Agriculture  
Texas Animal Health Commission (movement project only)  
Arizona Dept of Agriculture (movement project only)

**Premises ID System:** California Compliant Premises Registration System  
**Users:** California, Oregon

**Agreement Type:** Premises Identification with Field Trial

**Purpose:** Determine appropriate premises identification and animal tracking methodologies for the livestock industry in the Southwest

**Cooperator's Synopsis of their Project**

The States of Arizona, California, Oregon, and Texas are participating in a premises registration and animal tracking project that will help align animal and premises identification schemes within participating States with those laid out by the NAIS. This project will help identify premises in California and Oregon and explore animal movement tracking in the Southwest. The project targets specific animal movements on approximately 50,000 to 100,000 animals per year in the dairy and dairy/beef industry.

Special focus will be on tracking movements of dairy replacements from dairy to calf ranch back to production dairy or feedlot/slaughter; and movements of bull calves from dairy to calf ranch to feedlot to slaughter; movements of dairy cows to slaughter and rendering;

Participating States represent over 2.3 million lactating cows, with California having the Nation's largest dairy industry (1.7 million milk cows). When the dairy and dairy/beef inventories of the four participating States are added together, one out of every four dairy animals in the United States is represented. A map of participating States is available at <http://www.cdffa.ca.gov/pais>.

## **Premises Identification Summary**

<b>Target Description</b>	<b>Comments</b>	<b>Operations/ Segment of the Industry</b> (# of each)		<b>Other areas being tested/evaluated</b>
Premises Identification	Existing state surveillance system	<ul style="list-style-type: none"> <li>• Cattle</li> <li>• Swine</li> <li>• Sheep</li> <li>• Various (Saleyards, feedlots)</li> </ul>	<ul style="list-style-type: none"> <li>• 4,500</li> <li>• 300</li> <li>• 600</li> <li>• 150</li> </ul>	<ul style="list-style-type: none"> <li>• Validation and Conversion of existing information</li> <li>• Brand Inspection Programs</li> </ul>

## **Field Trial Project Summary**

<b>Target Description</b>	<b>Species</b>	<b>Animal ID Technology Type</b>			<b>Segment of the Industry</b> (# of each)	<b>Other areas being tested/evaluated</b>
		Existing	*RFID	Other		
Collecting Animal Movement	Cattle	Visual Brands Visual tags	ISO	DNA	20 Dairies 6 Markets 5 Slaughter Plants 6 Feedlots 7 Calf Growers	<ul style="list-style-type: none"> <li>• Tags Retention</li> <li>• Tag Distribution</li> <li>• Readability</li> <li>• Data capture</li> <li>• Data Reporting</li> <li>• Brand Inspection Programs</li> </ul>

### **Project Objectives:**

1. Premises Identification and validation
  - a. Start premises identification in California and Oregon via a State Compliant Premises Identification System
  - b. Validate existing dairy, sheep, saleyard, slaughter plant, feedlot information and convert into new numbering system
  - c. Develop guidelines for issuing premises identification
  - d. Explore use of brand identification programs to assist with premises identification
2. Identification of calves (bulls & heifers) at birth with subsequent tracking of movements to feedlot or lactation.
  - a. Four calf ranches in California and one each from the other participating states (total 7)
  - b. 40,000 calves tagged
  - c. Estimated 100,000 to 150,000 movement events
3. Track terminal movement of adult cattle to slaughter / rendering through marketing channels or direct.
  - a. 20 dairies from California and 5 each from Oregon, Arizona, and Texas. (total 35 dairies)
  - b. Estimated 8,000 to 10,000 movement events

**Third Party Participants**

1. Holstein Association – FAIR will provide portable RFID readers for auctions and packers.
2. AgInfoLink – will provide travel and discount system integration pricing

**Evaluation Standards:**

1. Tracking of 8,000 to 10,000 adult cow movement events from 20 dairies in California and 5 dairies each in Arizona, Oregon, and Texas to slaughter / renderer.
2. Tracking of 100,000 to 150,000 calves from farms in each state to a calf raiser and then on to a feedlot or lactation string.

**Colorado Department of Agriculture  
Tri-National Livestock Health and Identification Consortium**

**CA number:** 05-9108-0942-CA  
**Amount of CA:** \$1,214,579.00  
**Signature Date:** Nov 5, 2004  
**Coordinator:** Colorado Department of Agriculture  
**Other Awardees:**  
**States** - Arizona, New Mexico  
**Tribal** – Hopi Tribe, Navajo Nation, Ute Mountain Ute Tribe

**Cooperators:** **International** – Chihuahua, Sonoro (Mexico)

**Premises ID System:** Compliant Premises Registration System  
- provided by Research Management Systems

**Users:** All

**Agreement Type:** Premises Identification with Field Trial

**Cooperator's Synopsis of their Project**

The Tri-National Livestock Identification project is unique in many ways. It involves three contiguous Western states (Arizona, Colorado, and New Mexico), three sovereign Native American nations (the Navajo Nation, the Hopi Tribe, and the Ute Mountain Ute Tribe), and two Mexican states (Chihuahua and Sonora Mexico). All participating jurisdictions are brand states that will use their existing brand inspection infrastructure to assist in carrying out livestock movement recordings. A third-party software company maintains the consortium's jurisdictional databases; interfaces with the NAIS premises allocator, premises repository and animal identification repository; and distributes and records animal identification and animal movements. The project is divided into five basic components: outreach; premises registration for all major livestock species and non-producer participants; livestock identifier application; recording of GPS coordinates with livestock movement from farm of origin to livestock markets, change of ownership, feedlots and packing plants; and livestock traceability exercises.

The services of an economist will be utilized to design the economic evaluation parameters, and a survey specialist will provide pre- and post-project surveys of producers' attitudes toward animal identification.

All jurisdictions are working with Cooperative Extension and others to facilitate outreach efforts. During outreach meetings the third party database provider will facilitate producer premises registration via the Internet. Premises and transit "smart cards" will be tested for efficacy in recording livestock movements and transactions.

Further, selected horses identified with RFID implants will also be issued smart cards with the horse's adult picture imprinted on the card, and the RFID number, premises identification and animal health information recorded on the smart card's chip.

Animal identification including RFID and biometrics will be utilized and integrated into the Consortium's databases. Traceability exercises will be used to evaluate the projects ability to meet the 48-hour trace back goal.

Currently, three Native American Nation and Tribes have recently joined the Tri-National ID Consortium, i.e. Southern and Mountain Ute Tribes and The Tohono O'odham Nation. The Tri-National Consortium met March 8<sup>th</sup> in Albuquerque, NM to finalize jurisdictional contracts, and project progress. Jurisdictions are ready to implement their projects, but fund dispersal has prevented equipment and personal expenditure.

Colorado has just completed thirty-three animal ID "town" meetings throughout the State. Colorado Cooperative Extension and CSU Animal Science Department personnel were responsible for organizing and assisting in conducting the meetings. Currently the CSU Animal Science Extension Specialists are offering other Tri-National Consortium jurisdictions town meeting training and educational material. Further, an animal ID information and sharing web site is going to be hosted by CSU for the Consortium.

## **Field Trail Project Summary:**

Target Description	Species	Animal ID Technology Type			Segment of the Industry (numbers not provided)	Other areas being tested/evaluated
		Existing	*RFID	Other		
Animal ID	Cattle Equine Ovine Cervid	Visual Brands  Tattoos	ISO  Implants Rumen Bolus, 13.56 MHz Tags	DNA Retinal scan Group / lot	Producer participants Colo. State Univ., Dairy DHI – AZ, CO, NM Scrapie eradication premises Alternative Livestock Producers	Retention of tags Supplemental ID technology Reader technology
Smart Card evaluation	Equine  Bovine	Visual Brands	UHF  Implants	Smart Cards ECVI	Horse shows Equine Events Tag purchase sites	Premises SC Transportation SC Integrating CVI & Brand Inspection document on the card and equipping ports of entry with SC readers.
Animal Tracking	Cattle Sheep  Equine	Visual Brands	ISO Implants, tags, rumen bolus Implants	DNA Retinal scan	Change of ownership Change of premises International border crossings	Inclusion of GPS coordinates Integration of brand inspection

### **Project Objectives:**

1. Evaluate use of smart cards with premises ID information including brand pictures at tag purchase sites, livestock markets,
2. Each horse will have a smart card with physical description, etc. for use at events and shows to be evaluated in conjunction with Electronic Certificates of Veterinary Inspection (ECVI)
3. Evaluate usefulness of retinal scan and/or DNA as a backup ID to 'official' ID.
4. Evaluate ID devices for retention, readability, and cost.
5. Collection of geo-coordinates for each premises.
6. Evaluation of various ID reading/recording devices.
7. Transportation smart cards will record AIN's during loading, GPS coordinates, vehicle VIN, etc. Receiving premises will read smart card on arrival and transfer data into their database.
8. Movement tracking – change of premises or change of ownership.
9. Tracing test exercises to evaluate ability to trace across the consortium.
10. Movement tracking at selected ports along the Mexican border.
11. Economic evaluation of expenses for producers and government entities.

**Evaluation Standards:**

1. Number and types of premises registered – goal is 20% of all premises by EOY.
2. Species and number of animals identified (limited applicability at this stage)
3. Traceability: exercises conducted to determine traceability for all scenarios of inter- and intra- jurisdictional movement as well as international movement.

**Budget totals by jurisdiction:**

Arizona	\$182,500
Colorado	\$240,000
Hopi Tribe	\$ 50,500
Navajo Nation	\$114,500
New Mexico	\$182,500
Regional Infrastructure	<u>\$444,579</u>
TOTAL	\$1,214,579



## Florida Department of Agriculture

**CA number:** 04-9100-0915-CA  
**Amount of CA:** \$531,840.00  
**Signature Date:** September 30, 2004  
**Coordinator:** Florida Department of Agriculture  
**Cooperators:**  
    **States** – Texas Animal Health Commission  
    **Tribal** – Seminole Tribe of Florida

**Premises ID System:** Standardized Premises Registration System (SPRS)

**Users:** All

**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The Florida NAIS cooperative agreement includes a central component for implementing a premises identification system and integrating existing animal premises databases. More than 32,000 premises are already included in multiple State and Federal databases for various livestock and poultry species. This project will also develop procedures to identify and add premises to the National Premises Repository.

In addition to identifying premises, the cooperative agreement includes four animal identification and tracking project segments. These projects address:

- Electronically identified cattle moving directly to feedlots or through order buyers to feedlots in other States;
- Electronically identified salvage or cull cows moving directly to packing plants or moving through markets to packing plants;
- Electronically identified mature cows and replacement heifers incorporated with a computerized cattle management program for commingled and cooperatively managed cattle owned by the Seminole Tribe of Florida;
- Equine identification and health certification through expansion of an identity card with digital photograph, premises identification, electronic identification and other owner-selected means of identification for intrastate and interstate movement.

This cooperative agreement will address all of the components of the NAIS: premises identification, animal identification, tracking, and field trials. It will also involve a host of collaborators and stakeholders from ranchers to retailers to university and private software applications' companies working toward animal identification solutions in Florida

## **Field Trial Project Summary:**

Target Group	Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
			Existing	RFID	Other		
Calves	Animal ID Movement tracking	Bovine		ISO		13 Ranches 2 Order buyers  20,000 calves	Retention of tags OCVI / ECVI
Salvage or "cull cows"	Animal ID Movement tracking	Bovine		ISO		20 cattle producers 50 dairies 10 auction markets 2 slaughter plants 10,000 cows	Tag retention Market logistics ICVI Reader technology
Seminole Tribe of Florida	Animal ID	Bovine		ISO		Seminole lands (managed as a group resource) 25,000 cows	Computerized cattle management software
Horses	Animal ID Movement Tracking	Equine		ISO Implants	ID Cards	200 horse owners (voluntary) 1500 additional horses	Movement through agriculture interdiction stations ICVI
Scrapie Eradication Program	Animal ID	Ovine Caprine	Scrapie tags	ISO		Sheep and goat owners	

### **Project Objectives:**

1. Individual identification of 20,000 calves; 10,000 cull cows; and 25,000 Seminole cows and calves.
2. Tracing of calf movement from farm of origin through the backgrounding phase and eventually to a feedlot.
3. Tracing of cull cattle from farm of origin to livestock market or order buyer and to slaughter at one of two slaughter facilities.
4. Evaluation of EID technology at livestock markets
5. Identification of cows and replacement heifers by the Seminole Tribe of Florida with integration into a computerized management system. Some of these animals may be traced in the above protocols as they go to slaughter or feedyards.
6. Evaluation of Equine ID cards in conjunction with electronic Interstate Certificate of Veterinary Inspection (ICVI) and the Equine Event Extension program for tracking of animal movement.
7. Evaluation of ICVI for tracking animal movement.

8. Evaluation of group/lot identification techniques in movement of calves from large ranches to feedlots with application of individual ID at the feedyard.
9. Continuation of premises registration and tagging of sheep and goats as a part of the Scrapie Eradication Program.

**Evaluation Standards:**

1. Number of premises registered
2. Number of animals identified
3. Successful tracking of animals

**Budget totals by jurisdiction:**

Florida	Dept of Agriculture	\$436,240
Seminole Tribe of Florida		<u>\$ 95,600</u>
	TOTAL	\$531,840

## Idaho Coalition NAIS Project

**CA number:** 05-9116-0936-CA  
**Amount of CA:** \$1,164,000.00  
**Signature Date:** November 5, 2004  
**Coordinator:** Idaho Department of Agriculture  
**Cooperators:**  
    **Tribal –** Shoshone-Paiute Tribes of Duck Valley  
    **Others –** Global Animal Management  
                Idaho, Nevada, California, & Utah Cattlemen's  
                Association, Various Producers  
  
**Premises ID System:** Idaho State Premises Registration System  
                                - provided by: Global Animal Management  
**Users:** Idaho  
  
**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The Idaho State Department of Agriculture (ISDA) is an administering agency for the U.S. Department of Agriculture's (USDA) NAIS projects. The \$ 1.16 million, 12-month project will be shared between producers, the States within the Northwest Pilot Project (NWPP), and other partners in the industry. The funds will be used for individual animal identification, and the project is designed to determine (a) the validity of radio frequency identification device (RFID) technology; (b) information technology (IT) needs for everyone in the production chain; (c) the intrusive level of RFID and IT into the current system; and (d) the benefit for each segment of the industry.

The ISDA is responsible for tracking and managing data for intrastate animal movements and disease programs. The goal is to provide 48-hour trace back of animals in case of any foreign or domestic animal disease outbreak. USDA will manage the national premises registration and animal identification repositories.

The NAIS funding will support various projects, including\* Using a composite of four different IT providers, 18 of Idaho's different animal disease and brand databases will supply data to help prove the flexibility of the NAIS system and allow the State to pre-register as many as two-thirds of Idaho's premises. The pre-registration process will then be utilized to invite participants to county-level informational sessions about premises registration, individual animal identification, and the benefits to the industry.

- The Northwest Pilot Project, administered by the Idaho Cattlemen's Association, includes the States of California, Oregon, Hawaii, Utah, and Washington. It will demonstrate the effectiveness of premises and animal identification, provide outreach and education, and evaluate methods for identifying and tracking animals;
- The Shoshone-Paiute Tribes' project at Duck Valley Indian Reservation, which will develop a Tribal NAIS program, provide outreach, and research Tribal database options;
- The University of Idaho, Caine Veterinary Teaching Center's evaluation of animal identification technologies for the cattle industry; and

Production segment technology evaluations at Treasure Valley Livestock, a feed lot, cervidae operations and dairies. The beef industry will identify several segments including sale-barns, dealers, feedlots, meat packers, and cow/calf producers.

### **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal ID	Bovine	Brands	ISO		Brand Inspectors Producers Livestock Market Academia Livestock producers	Tag distribution Equipment evaluation
Animal Movement	Bovine		ISO		1 Livestock Market Livestock producers	Tag retention Equipment location Equipment evaluation
Animal ID	Cervidae		ISO		Cervidae producers	Equipment evaluation

### **Project Objectives:**

1. Establish interface between the Idaho State Premises Registration System (ISPRS) and the NAIS programs
2. Integrate brand registration and inspections with the ISPRS.
3. Trace cattle from farm of origin to final destination herd or feedlot. The current brand inspection personnel will be instrumental in this.
4. Trace cattle through livestock market.
5. Evaluate systems in the accomplishment of the above movement events.
6. Identify cattle with RFID tags. Evaluate distribution systems, tagging systems, etc.
7. Education and outreach – primarily through the NWPP.

## Kansas Animal Health Department

**CA number:** 05-9120-0946-CA  
**Amount of CA:** \$805,000.00  
**Signature Date:** October 26, 2004  
**Coordinator:** Kansas Animal Health Department  
**Cooperators:**  
    **States –** Colorado, Illinois, Iowa, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, Texas  
    **Tribal –** N/A  
    **Others –** AgInfoLink, Digital Angel, Kansas State University, National Beef, National Carriers, Osborne Industries, U. S. Premium Beef

**Premises ID System:** Standardized Premises Registration System  
**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The Kansas Animal Health Department is currently using USDA's Standardized Premises Registration System to register premises. In addition to registering premises, the State is assessing the feasibility of using wireless, internet-based mobile radio frequency identification (RFID) technology in commercial multi-deck livestock transports to monitor the movement of cattle during any relocation process.

Using a network of cooperating producers drawn from up to ten States (Colorado, Illinois, Iowa, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota and Texas), cattle carrying electronic identification devices will be recorded during movement in the normal course of commerce. At full function, these commercial transports carrying readers and recording devices will read RFID tags during loading at the origin of a shipment and off-loading at its destination (type of movement), allow tag and animal number reconciliation, time/date stamp each transaction, obtain and record GPS coordinates of origin and destination of a shipment, and link the packaged information to a Premises Identification Number at origin and destination. This information will be transmitted wirelessly to a third party information management system and routed to the animal health authorities in the State of origin and destination for a particular full or partial load of animals. With the addition of group/lot identifiers, the system is to be functional for both cattle and swine shipments with final data available to the USDA NAIS main database.

Cooperating parties in this project are the Kansas Animal Health Department, AgInfoLink, Digital Angel, Kansas State University, National Beef, National Carriers Osborne Industries and U.S. Premium Beef. Milestones for the project are to initiate procurement of resources and to identify cooperators during the first quarter of the project; test prototypes of transport readers and recording units and bring on-line the internet-based information management system during the second quarter; begin tracking cattle movements in the third quarter; and continue tracking movements, develop project summary and bring project to conclusion by the end of the fourth quarter. A total of 20,000 individual animals are projected to be tracked with 2,000 –

5,000 from cattle feeding operations to packing premises and the remainder moving in commerce from operations of origin through the supply chain to livestock markets, grazing or backgrounder operations and to feeding operations.

### **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal movement (Livestock transporters)	Bovine		ISO	GPS Wireless data transmission	Commercial livestock haulers	Automated data entry of RFID numbers at loading
Animal Identification	Bovine		ISO	Group / lot	Cow/calf Stocker/backgrounders Feeders Slaughter plants	

### **Project Objectives:**

1. Assess the feasibility of using wireless, internet-based mobile RFID technology in livestock transports to monitor the movement of cattle during any relocation process
  - a. Track commercial shipment of cattle from origin to destination
  - b. Address the need for a system of near-real time information exchange and supply chain visibility.
  - c. Determine and record the exact location of pick-up and drop-off sites.
2. Increase quality assurance of RFID information gathering recording and transmission.
3. Aid in the ICVI and regulated animal health record keeping.
4. Outfit 25 – 30 multi-deck commercial livestock conveyances with mobile RFID tracking technology.
5. Evaluate the feasibility of shifting the data inputs from individual producers to those commercial carriers hauling livestock.

### **Evaluation Standards:**

1. Outfitting transport trailers with RFID and GPS equipment
2. Training of operator/drivers
3. Development of software required for data gathering
4. Data capture during transportation of cattle

## Kentucky Department of Agriculture

**CA number:** 04-9100-0922-CA  
**Amount of CA:** \$269,093.00  
**Signature Date:** September 28, 2004  
**Coordinator:** Kentucky Department of Agriculture  
**Cooperators:**  
    **States –** Southeastern Livestock Network, LLC (SELN) \*  
    **Tribal –** N/A  
    **Others –** Ag InfoLink  
                Beef Information Exchange  
  
**Premises ID System:** Standardized Premises Registration System  
**Agreement Type:** Premises Identification with Field Trial

\* SELN States – Alabama, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia

### **Cooperator's Synopsis of their Project**

The Kentucky Department of Agriculture has been working with the Kentucky Beef Network, the Extension Service, and many producer groups since 2002 to develop the foundation for a premises and animal identification system. Kentucky's counties maintain a property tax database system, which provides access to already stored premises information. Using this platform, Kentucky will expand its system to record premises information for all livestock producers. With the State Veterinarian as the project director, the project will implement premises identification within Kentucky for a livestock traceability system that meets the NAIS standards.

As a member State of the Southeastern Livestock Network, LLC (SELN), Kentucky will use its pilot project funding to establish and implement procedures and infrastructure for animal tracking at the market level. SELN will operate a limited project within its member States to track the movement of slaughter cows from farms, auction markets, intermediary shipping and collection points, and packing plants. The cooperators in this project will consist of 10 auction markets (1 in each of the 10 member States), 2 intermediary points, and Shapiro Packing in Augusta, Georgia. The network will also track direct-trade movements to this and other processors within the region. Many of these direct-trade cattle will originate from outside the region; therefore, a high degree of cooperation between this project and other pilot projects will be necessary. The resulting data will be used to develop, demonstrate, and satisfy NAIS requirements, while also satisfying the market demand for animal identification and source verification.

The goal of the project is to demonstrate the systems and protocols necessary to facilitate data collection and reporting in varied sectors of the marketing and



processing industries. It should be understood that all the animals in the project may not complete traceability through all sectors, as some may be purchased by entities outside the scope of the project. However, these exceptions should not diminish the credibility of the project, as this issue will be addressed around the industry and country as wider acceptance of data collection and reporting procedures increases.

### **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal Identification	Bovine		ISO		First entry of cattle into commerce – producers, stockyards	Evaluation of economic impact of animal and premises ID on producer and market
Animal Movement	Bovine		ISO		Producers (1500 cull cows) 10 Stockyards Assembly points 1 Slaughter facility	

### **Project Objectives:**

1. Register 50% of the 87,000 Premises in Kentucky
  - a. Batch registry of premises using existing property tax databases.
2. Identify, test, and cost evaluate equipment and software required to facilitate data collection at selected auction markets, shipping/collection centers, farms and processors.
3. Electronically monitor, record and report the movement of 1500 slaughter cows from farm to processor through auction markets and intermediary collection points for compliance with NAIS standards using SELN data management system that will be queried by individual states.
4. Demonstrate the partnership benefits of a regional approach.
5. Demonstrate a model for distribution and validation of electronic identification devices (EID's) at the retail level
6. Produce and distribute information regarding the NAIS.

### **Evaluation Standards:**

1. 43,500 premises registered
2. Development of specifications and costs for RFID tags, readers, and collection/reporting software.
3. Demonstrate that a privately held database can collect, maintain, protect and report necessary animal movement for compliance with NAIS standards.

- a. Successful tracing of movement of RFID tagged animals from origin to slaughter.
- 4. Development of a partnership including the SELN, producers, markets, processors, and state animal health officials to provide the data required by NAIS.
- 5. Ability of the SELN to distribute and correlate EID's to a unique premises number and relate the data to a subsequent animal movement
- 6. Development and distribution of NAIS information.

## **Minnesota Board of Animal Health**

**CA number:** 04-9100-0917-CA  
**Amount of CA:** \$434,578.00  
**Signature Date:** September 23, 2004  
**Coordinator:** Minnesota Board of Animal Health  
**Cooperators:**  
    **Others -** Digital Angel Corporation  
                 Protein Sources  
                 EZ-ID

**Premises ID System:** Minnesota Compliant Premises Registration System

**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

Minnesota is developing a system that will allow an exposed animal to be traced within 48 hours of a disease outbreak. To accomplish this goal, State officials will focus on collecting the location of every livestock premises in the State along with the associated producer contact information. The primary goal of this project is to identify and register all livestock premises in Minnesota, particularly cattle premises. In working to achieve this goal, the State will make significant progress toward validating over 50,000 premises currently in its database and enhancing the Generic Database.

Minnesota's project will also include the development of an animal tracking system for multiple species that could be a potential model for the NAIS. As part of the project, officials will collect and transmit animal movement data from some Minnesota farms, auction markets, and packing plants. The State will carry out a pilot project to test the use of radio frequency identification in swine and beef herds and track individual animals and groups of animals. Minnesota also plans to begin an educational campaign to inform all State livestock producers of the NAIS. The State will enlist the help of many stakeholders including veterinarians, veterinary clinics, auction markets, laboratories, universities, other state agencies, associations, packing plants, etc.

Minnesota officials believe that direct input from producers and industry leaders is vital to the success of NAIS. As part of the project, the State has convened a group of stakeholders to act as an advisory committee to implementing NAIS in Minnesota.

## **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal Tracking Animal Identification	Porcine		ISO	Group / lot	Digital Angel Inc. (software) 1 Swine Producer (Protein Sources) 40 premises 1 Packing plant	Read failure rate economics software uploads
Animal Tracking Animal Identification	Bovine		ISO	Electronic premises ID card	Producers (beef and dairy) EZ-ID and Digital Angel Inc. (technology and software) 1 Livestock market 2 Packing plants	economics software interfaces time needed for data collection / transmittal

### **Project Objectives:**

1. Interface tracking software with state premises database (GDB)
2. Evaluate and adapt tracking software program owned by Protein Sources (swine producer) for recording and reporting of animal movement. Adapt software to allow similar tracking for cattle.
3. Evaluate time cost for data collection and transmittal for livestock markets and slaughter facilities.
4. Evaluate read failure rates for RFID devices

### **Evaluation Standards:**

1. Number of premises registered
2. Transfer of current premises data to NAIS system
3. Tracing of swine movements

### **Budget totals by jurisdiction:**

N/A

## Mississippi Board of Animal Health

**CA number:** 05-9128-0952-CA  
**Amount of CA:** \$153,327.00  
**Signature Date:** November 9, 2004  
**Coordinator:** Mississippi Board of Animal Health  
**Cooperators:** Others – Southeastern Livestock Network

**Premises ID System:** Mississippi Compliant Premises Registration System  
**Users:** Mississippi

**Agreement Type:** Premises Identification with Field Trial

### Field Trial Project Summary:

Group	Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
			Existing	RFID	Other		
Southeastern Livestock Network	Animal Movement	Bovine		ISO		Livestock Markets Producers Slaughter Plants	

#### **Project Objectives:**

1. Establishment of a premises registration system
2. Education / outreach
3. Participation in livestock tracking trials with the Southeastern Livestock Network (SELN). This project is funded through the Kentucky cooperative agreement.

#### **Evaluation Standards:**

1. 5000 of 40,000 premises registered
2. Number of educational meetings held with stakeholders and producers
3. Integration of RFID into disease programs such as brucellosis, TB, etc.
4. Participation in the SELN project.

#### **Budget totals by jurisdiction:**

N/A

#### **UPDATE (3/30/05)**

- Premises Allocator approved by USDA- now registering premises
- 3 Sale barns selected to participate in the SLN Tracking project (waiting on software changes to allow integration of information from EID Readers)
- Implemented contract with Extension to provide education of NAIS

## North Dakota Board of Animal Health

**CA number:** 05-9138-0944-CA  
**Amount of CA:** \$515,000.00  
**Signature Date:** October 20, 2004  
**Coordinator:** North Dakota Board of Animal Health  
**Cooperators:**  
    **Tribal –** N/A  
    **Other –** North Dakota Stockmen's Association  
                North Dakota Beef Cattle Improvement Association  
                Dickinson Research Extension Center  
  
**Premises ID System:** Standardized Premises Registration System  
**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The North Dakota project will share the collection and administration of premises information and animal movement data between two separate entities-the North Dakota State Board of Animal Health (ND BOAH) and the North Dakota Stockmen's Association (NDSA). By law, all animal identification programs in the State pertaining to cattle, horses, and mules are under the jurisdiction of NDSA. All other species fall under the jurisdiction of ND BOAH.

During the next year, ND BOAH expects to be able to identify the vast majority of the following premises and issue them premises identification numbers using the U.S. Department of Agriculture's Standardized Premises Registration System: 850 sheep farms, 450 swine farms, 350 dairy operations, and 230 bison operations. These numbers reflect approximations from the North Dakota Agriculture Department, North Dakota Extension Service, NDSA, and Agriculture Statistics.

The NDSA will identify operations that are primarily beef, horse, and mule operations. Approximately 10,000 beef operations are in North Dakota. The equine premises numbers are not as readily available but will be included.

As was done with the sheep industry in North Dakota when issuing scrapie tags and flock numbers, ND BOAH will work closely with Extension agents to determine where premises are and what species are on each premises.

## **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal ID Movement tracking	Bovine	Brands USDA metal tags	High Frequency ISO Frequency		150 producers livestock markets	Implementation costs

### **Project Objectives:**

1. Compare effectiveness of RFID tags to conventional ID methods (brand, USDA tags).
2. Compare high frequency RFID tags to ISO compliant RFID tags.
3. Test RFID technology in 'high volume' auction markets. High frequency RFID tags will be compared to ISO compliant RFID.
4. Monitor movement of tagged calves through normal market channels to test ability to capture, transfer and store data.

### **Evaluation Standards:**

10,000 calves ID'ed with ISO RFID tags, USDA metal tag, and brand.

1,000 calves ID'ed with high frequency RFID tags.

### **Premises Registration**

By law, the North Dakota Stockmen's Association (NDSA) shall serve as the state's administrator and allocator for that portion of any federally sponsored animal ID program which pertains to cattle, horses and mules. The 30,000 brands registered with the NDSA are associated with approximately 12,000 premises. Every fifth year is a brand renewal year. The processes involved with brand renewal and premises registration will be combined and begin in July 2005. Sheep producer premises registration is in progress.

Eight hundred sheep producers with scrapie premises numbers were sent NAIS premises application forms. Sheep producer information is being updated and NAIS premises numbers are being assigned upon receipt of these applications. To date 225 sheep premises have been registered. Many of these sheep premises are associated with multiple species. The 575 sheep producers who did not respond will receive a reminder stating NAIS premises registration will proceed using existing contact information unless they object. Dairy and swine producers are next on the list to receive premises registration forms.

### **Outreach**

Outreach efforts have been in areas of producer education, a ND cattle industry stakeholder's trip to Joplin Regional Stockyards and a mailing to sheep producers focusing on premises registration. BAH veterinarians have made

presentations on animal identification and NAIS at 19 livestock producer meetings, attended by at least 1050 producers January through March. Efforts to inform the ND livestock community about animal ID have been greatly enhanced via area radio ag-journalist, Al Gustin. He has made a great effort to keep his audience informed about animal ID. He is scheduling two prime time forums during the largest regional (KFYR Agri-International) ag-show to discuss animal ID issues and to demonstrate current technologies associated with animal ID. The BAH intends to use North Dakota Ag Statistics, an agency with the National Agricultural Statistics Service (NASS), to do a mailing that will provide livestock producers with a premises registration form. There are other state agencies and certain private entities that may be used to mail premises registration forms.

### **Pilot Projects**

Dickinson Research Extension Center (DREC), a branch of North Dakota State University Research Extension Center Systems, is managing a pilot project called CalfAID. The goal of CalfAID is to document the physical and electronic processes needed to do 48 hour traceback in accordance with the NAIS.

DREC processed 4,672 calves on 25 North Dakota ranches during the fall of 2004. After the calves were tagged, individual producers conducted business as usual. The center's team initiated traceback efforts once the calves were sold. The following **Beef Talk** articles are a partial summary of the project to date.

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**BeefTalk Feb 28, 2005: Currently, out of every 100 calves entering the marketing system, 15 are lost**

**By Kris Ringwall**, Beef Specialist  
NDSU Extension Service

Tracing cattle is a hot topic. There have been many coffee-table discussions on the relevancy of the effort, but if a producer ponders the current state of affairs, the beef industry is in relatively good shape.

Disasters could be in the making, but the more typical problems encountered are man-made. The beef industry is no more or less at risk than any other industry. While producers may feel somewhat vulnerable, the beef industry needs to deal with the future in much the same manner as other industries.

How is the current beef industry doing? The answer to this question is more relevant today than asking what the industry should do in the future.

The Dickinson Research Extension Center and the North Dakota Beef Cattle Improvement Association implemented the CalfAID program in 2004. The goal was to have a better understanding of the current state of the beef industry regarding electronic cattle identification and the ability to actually track cattle. The study has yielded considerable data and still is compiling input.

On the ability to trace cattle, two questions came up. How effectively can the current system track cattle movement and how effective is the electronic identification of individual calves?

In terms of the first question, the center, based on the expressed interest following informational meetings and news releases, selected 25 producers in North Dakota. The center worked 4,672 calves within these herds, traveling 3,762 miles.

After the calves were tagged, individual producers conducted business as usual. The center's team initiated trace-back efforts once the calves were sold. To date, 1,430 miles have been logged and a total of 379 hours of personnel time have been spent tracking the 4,672 calves. Tracking has involved extensive contact with producers, stockyards, brand offices, buyers, backgrounders and feeders.

To date, 1,088 calves (23.3 percent of the 4,672 calves tagged) remain with the producers as replacements. Of the remaining 3,584 calves, approximately 55 percent moved directly to their next destination, while 45 percent moved through established marketing channels.

As these calves were traced by the DREC, 955 calves (26.6 percent of the 3,584 marketed calves) were moved into 23 backgrounding facilities and 2,090 calves (58.3 percent of the 3,584 marketed calves) arrived at 25 different feedlots in several states. Five calves (less than 0.1 percent) were slaughtered, and unaccounted for are 534 calves (14.9 percent of 3,584 marketed calves).

Of the 25 herds, 15 herds were 100 percent traceable utilizing the existing systems available to track cattle. Ten herds lost more than 33 percent of their calves entering the marketing channels. Of the total 4,672 calves tagged, 88.6 percent of all the calves tagged were located and 11.4 percent were unaccounted for, additional efforts are underway to trace them.

The principle point of loss was during the marketing process. Calves simply moved through or were commingled with larger groups of calves. Subsequently, the ability to follow the calf to the next destination was not available or not recorded.

The process shows that the current system of cattle tracking is working, but is not 100 percent effective. At what point additional systems are required is unknown. Additional diligence throughout the industry certainly can cut down on the percentage of calves currently not accounted for.

Time will tell, coffee will be drunk, but for now, we do not yet have data on 15 out of every 100 calves entering the marketing system.

May you find all your USAIP ear tags.

Your comments are always welcome at [www.BeefTalk.com](http://www.BeefTalk.com). For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to [www.CHAPS2000.com](http://www.CHAPS2000.com) on the Internet. In correspondence about this column, refer to BT0235.

###

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## Traceable Versus Unaccounted for Calves

Dickinson Research Extension Center CalfAID™ Team

Total recorded calves	4,672
Total calves marketed	3,584
Total traced calves	3,052 (85%)
Total unaccounted calves	534 (15%)*

\* Additional efforts are underway to trace.

## **BeefTalk March 10, 2005: North Dakota Stockmen's Brand Inspection Service Adds 15 Percent**

**By Kris Ringwall, Beef Specialist**  
NDSU Extension Service

The Dickinson Research Extension Center has been busy tracking cattle. As part of the CalfAID pilot project, the DREC placed electronic identification tags (EIDs) in 4,672 calves this past summer and fall. The goal was to record the movement of the calves as a group and as individuals.

Currently, 1,088 calves are still on the home place and 3,584 have entered the market channels and moved to new homes. Since the CalfAID traceback began in early winter, all but 510 calves (14.2 percent) were located by premises. A premises-to-premises track is not an individual animal traceback; rather it identifies the premise where each calf could be.

If a producer sold calves to three different locations, the center still does not know each calf at each premises. The center simply knows there are three locations a calf could be. The EID tracking will come later.

Is this good enough? In a broad context, yes, being able to locate more than 85 percent of the calves is excellent. However, allowing almost 15 percent through with no location identified means the next step of tracking the individual numbers is already 15 percent in the hole. The point being, a producer can't read an EID tag unless you know where the calf is.

Why we lost 510 calves is a common question. A common thread for those operations unresponsive to the request was poor record management, uncooperative buyers, commingling and re-sorting of calves within the marketing channel. To sum it up, attitude was keen. Proudly, on a simple request for information, more than 85 percent of the requests were honored diligently. Mark that benchmark 85 percent successful.

The desire to find the 510 calves grew and the North Dakota Stockmen's Brand Inspection Service stepped up to meet the challenge. The brand service took on the commitment to find the unaccounted for calves.

Darryl Howard, chief brand inspector, made a personal commitment to go to the end of the line to find them. At the end of the line, brand inspectors located 494 of the 510 calves. That raised the final count to 3,568 calves out of 3,584, or just more than 99.5 percent premises location achieved. The remaining 16 calves were traced to a single source, but the ability to track the final location became futile because records lacked sufficient clarity. So, congratulations to an industry that is well served by the CalfAID and the North Dakota Stockmen's Association Brand Inspection Service.

A point to ponder: the industry is in a very serious quandary over animal health issues. Not only does the dollar cost of tracking proposals continue to climb, the dollar cost of secondary impacts within the industry is huge. There is no template available, so arriving at any type of cost analysis would be pure conjecture at this point.

Put aside the costs and consider the impacts on relationships, friendships, neighbors and people divided by imaginary lines. These challenges will take a very human toll on a business that prides itself as a way of life. There are days when that way of life is simply no fun.

For now, we can take pride in the fact that some things work well. Present systems of tracking cattle do work because we can locate cattle on a premises within 48 hours.

To improve on the premises location system is difficult because 99.5 percent is a hard score to duplicate. The ability to track an individual animal for its own sake, following an individual EID from premises to premises is only in its infancy compared with the experience of known brand inspectors.

Individual identification, whether visual or electronic, remains a process that provides much more than individual or premises tracking. Individual identification is a management tool for the beef industry that, when used properly, can create many positive outcomes.

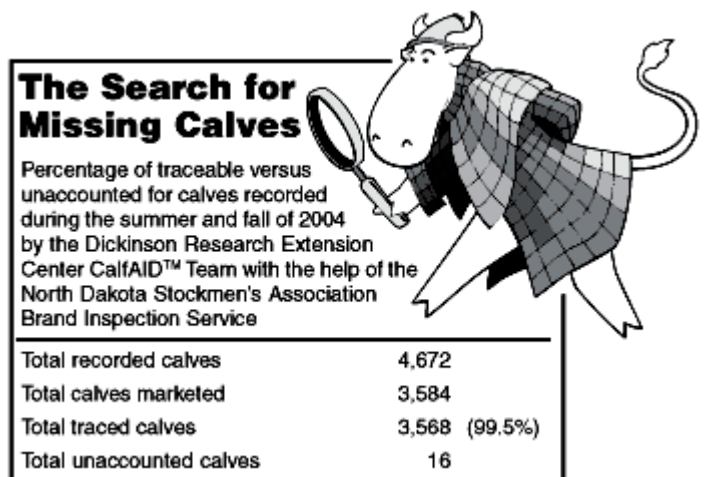
But for now, a big thank you goes out to chief brand inspector Darryl Howard and his inspectors.

May you find all your brands.

Your comments are always welcome at [www.BeefTalk.com](http://www.BeefTalk.com). For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to [www.CHAPS2000.com](http://www.CHAPS2000.com) on the Internet. In correspondence about this column, refer to BT0238.

###

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## **Pennsylvania Department of Agriculture**

**CA number:** 05-9142-0935-CA  
**Amount of CA:** \$615,000.00  
**Signature Date:** October 25, 2004  
**Coordinator:** Pennsylvania Department of Agriculture  
**Cooperators:**  
    **States –** N/A  
    **Tribal –** N/A  
    **Other –** Dairy Herd Improvement Association  
**Premises ID System:** PA Herds - Compliant Premises Registration System  
**Users:**

**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The Pennsylvania Department of Agriculture (PDA) is working in conjunction with Penn State University, Lancaster Dairy Herd Improvement Association (DHIA), Dairy One, National DHIA, and the Pennsylvania Beef Quality Assurance Program to carry out the goals of its NAIS cooperative agreement. PDA has installed a new computer system called PAHERDS that is linked to the National Premises Information Repository to secure premises numbers for Pennsylvania producers. PDA is also working with some auction facilities in the State to install panel readers to collect information on animal movement.

PDA will work with DHIA to distribute and insert 50,000 tags in dairy animals in Pennsylvania. The collection of premises and animal information and the movement of the animals in commerce and to other premises will be recorded and interfaced with PDA's database.

The Pennsylvania Beef Quality Assurance Program is similar to the DHIA project in the dissemination of tags and the information that will be collected. The Quality Assurance Program will be disseminating 10,000 tags to producers and collect information for PDA.

PDA's project with Penn State will be an information collecting program. Penn State will be sending out mailings with information data sheets and maps to producers, who will then pinpoint their premises on the map for geo-coding purposes. Penn State will collect the information and then download it to the PDA database, so the State can secure premises numbers for the producers.

## **Field Trail Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal ID	Bovine		ISO		1500 Producers 60,000 cattle	
Animal Tracking	Bovine		ISO		1500 Producers 5 Livestock markets 2 Packing plants	

### **Project Objectives:**

1. 60,000 cattle ID'ed with RFID tags
2. Animal Movement Tracking through livestock auctions, slaughter plants, and rendering plants.

### **Evaluation Standards:**

1. 60,000 cattle ID'ed with RFID tags
2. Successfully capturing movement data at the livestock auctions, slaughter plants, and rendering plants without significantly disrupting normal business practices.
3. Successful data flow through PA HERDS to the National Repository.

### **Budget totals by jurisdiction:**

N/A

## **South Dakota Animal Industry Board**

**CA number:** 05-9146-0939-CA  
**Amount of CA:** \$505,240.00  
**Signature Date:** October 18, 2004  
**Coordinator:** South Dakota Animal Industry Board  
**Cooperators:**  
    **States –** South Dakota  
    **Tribal –** N/A  
    **Other –** South Dakota Department of Agriculture  
                South Dakota Beef Quality Assurance  
                South Dakota Bureau of Information and Technology  
                Cooperative Extension  
**Premises ID System:** Standardized Premises Registration System  
    **Users:**  
**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

South Dakota's Animal Identification and Tracking System will use the U.S. Department of Agriculture's National Premises Allocator and Standardized Premises Registration System to phase-in animal identification consistent with the NAIS. The project will be open to all producers, markets, and processor components within the State. This system will work with the Governor's South Dakota Beef Marketing Initiative known as South Dakota Certified. Premises identification numbers will be distributed to participants by the State Animal Health Official with the South Dakota Animal Industry Board.

Those participating in this program and other process certification plans will obtain radio frequency identification (RFID) for their animals. The South Dakota Department of Agriculture and other process-certifying agents will be asked to share movement data, which will be maintained by the State Animal Health Official in an individual animal identification database, with the national animal identification database. Volunteer Dakota Certified participants will be required to share movement data with the State Animal Health Official and identify their cattle using NAIS-compatible RFID systems.

South Dakota's goals include having 5 percent of the State's cattle producers and 6 auction markets participating by 2005, and providing education and outreach to all producers, markets, veterinarians and industry stakeholder entities in 2005.

South Dakota will measure its progress by the number of producers that participate; number of premises with official premises identification; number of cattle in the database; its ability to track movements for animal health purposes;

the percentage of identified participant cattle having movements tracked; and by completing surveys estimating costs for participating producers and markets.

In cooperation with the National Pork Board, South Dakota's plan includes a project involving measuring tag performance through the use of 6,000 tags of different design and color on 6,000 cull sows and boars on 6 to 12 farms.

More information is available at <http://www.state.sd.us/aib/>.

### **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal Identification Movement Tracking	Bovine		ISO		Producers Auction Markets Livestock Dealers	Cost for producers Cost for markets Tag retention Readability
Movement tracking	Porcine			Color coded ear tags  Barcodes	Producers Slaughter plants	Cost to producers Readability at slaughter Tag retention
Animal Identification	Bison		ISO		Producers	Tag retention
Animal Identification	Cervidae	Visual tags	ISO		Producers	

### **Project Objectives:**

1. Participation by 5% (700) of cattlemen
2. Participation by 6 auction markets
3. Tracking of animal movement
4. Tracking of cull sows and boars from 6–12 farms to slaughter

### **Evaluation Standards:**

1. Number of producers participating
2. Number of premises registered
3. Ability to track movements
4. Number of cattle in the database
5. Percentage of identified cattle that have movement tracked

### **Budget totals by jurisdiction:**

N/A

## **Texas – Oklahoma – Osage Nation Project**

**CA number:** 05-9148-0949-CA

**Amount of CA:**

<b>Texas</b>	\$1,000,000.00
<b>Oklahoma</b>	\$ 675,000.00
<b>Osage Nation</b>	\$ 50,000.00

**Signature Date:** November 5, 2004

**Coordinator:** **Texas Animal Health**

**Cooperators:**

**States – Oklahoma**

Kansas Livestock Board  
California Dept. of Agriculture  
Arizona Dept. of Agriculture  
Arkansas Dept. of Agriculture  
Florida Dept. of Agriculture

**Tribal – Osage Nation**

**Other –** Beef Information Exchange, Global Animal Management, National FAIR, Dairy Herd Improvement Association, Agri-Sales Associates, Digital Angel Corporation, Centra Tech, Temple Tag Co, Allflex, XID Technologies, Global Vet Link

**Premises ID System:** Standardized Premises Registration System (SPRS)

**Users:** TX, OK and Osage

**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The Texas Animal Health Commission; Oklahoma Department of Agriculture, Food, and Forestry; and the Osage Nation proposed a joint project to initiate premises identification, develop a pilot project to evaluate tags and readers in various livestock species, and identify and track livestock through various marketing venues. In addition to the previously mentioned entities, the project will include participation by producer, processor, and marketing organizations, academia and extension, and third party service and product providers. The project will focus on the animal identification of cattle (beef and dairy), horses, sheep, goats, and domestic cervidae.

Each agency will hire an Animal Identification Program Coordinator and support the U.S. Department of Agriculture's (USDA) outreach efforts, through use of the materials prepared and provided by USDA. The premises identification portion of this project will utilize software provided by USDA to interface with the national

premises number allocator and data repositories. Officials have or will receive training on USDA's Standardized Premises Registration System to register premises.

The agencies will acquire necessary hardware, software, and staff to administer and manage the premises identification system. Project administrators will utilize third party product and service providers to conduct the animal identification and tracking portion of the Texas/Oklahoma/Osage Nation implementation project. These functions will include the recording and reporting of animal identification, collecting animal movement data, and submitting data to a central or common database. The project administrators will conduct tests and evaluations of premises and animal identification databases in order to assess capabilities for effectively tracking animal movements, conducting trace back activities, and guaranteeing that these systems meet program standards.

### **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal ID Movement tracking	Cattle	Brands	ISO		Producers Livestock markets Feedlots Order buyers Packing plants	
Animal ID Movement tracking	Horses	Brands	ISO	Electronic health certificates	Producers Brand inspectors	
Animal ID	Ovine Caprine		ISO Ear tags Implants		Producers	Tag retention Readability
Animal ID	Cervidae		ISO Ear tags Implants		Producers	Tag retention Readability

### **Project Objectives:**

1. ID cattle with RFID tags on farm or at livestock markets, order buyers, or feedlots and record, report and terminate the tag at packing plants
2. Utilize electronic ID for horses, correlate with brand inspection information, and utilize electronic health certificates to ID horses to premises of origin, record test information and report movements.
3. Collaborate with projects in other states to record report and share information on ID'ed animals
4. Conduct a trial to evaluate available RFID devices and readers in sheep and goats to identify those that perform reliably.
5. Conduct a trial to evaluate RFID ear tags or implantable devices in cervidae to identify those that perform reliably.



6. Develop and evaluate protocols for recording animal ID and reporting movements while minimizing disruptions on normal animal flow and processing through markets and other collection points.

**Evaluation Standards:**

**Texas**

1. Identify and register 35,000 premises
2. Identify by RFID tag or implant 65,000 animals and report to national repository
3. Record 1000 animal movements and report to national repository

**Oklahoma**

1. Identify and register 12,000 premises
2. Identify 21,000 animals and report to national repository.
3. Record 700 animal movements and report to national repository.

**Osage Nation**

1. Identify and register 300 premises.
2. Identify 500 animals and report to national repository.
3. Record 50 animal movements and report to national repository.

**Budget totals by jurisdiction:**

Texas	\$1,000,000.00
Oklahoma	\$ 930,646.00
Osage Nation	<u>\$ 50,000.00</u>
<b>TOTAL</b>	<b>\$1,980,646.00</b>

## Utah Department of Agriculture

**CA number:** 05-9149-0945-CA  
**Amount of CA:** \$182,100.00  
**Signature Date:** November 8, 2004  
**Coordinator:** Utah Department of Agriculture and Food  
**Cooperators:**  
    **States –** Idaho, Nevada (Northwest Pilot Project)  
    **Tribal –** N/A  
    **Other –** Global Animal Management  
              Kelly Registration Systems, Inc  
              Global Vet Link, L.C.  
**Premises ID System:** Compliant Premises Registration System (CPRS);  
                            - provided by Global Animal Management  
                              (GAM)  
                            Standardized Premises Registration System  
  
**Users:** N/A  
**Agreement Type:** Premises Identification with Field Trial

### **Cooperator's Synopsis of their Project**

The goal of the Utah Department of Agriculture and Food is to be an active participant and leader in the NAIS. During the next year, State officials will work with cattle, sheep, horse and cervidae (elk) owners across Utah to achieve this goal by meeting two major objectives.

The State's first objective is to use the existing database of livestock brand recordings and the 2005 brand renewal year to obtain premises numbers for and populate the National Premises Repository System with information from at least 50 percent (approximately 10,000) of Utah's current cattle, dairy, sheep, and horse owners. They will also obtain premises identification numbers for auctions and packing plants. State officials have received training on the U.S. Department of Agriculture's Standardized Premises Registration System to register premises.

The State's second objective is to obtain premises numbers for all of Utah's elk farms and hunting parks. They will also individually identify 2,500 head of elk using radio frequency identification tags and track the animals from premises to premises throughout the upcoming year.

## **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal Identification Movement tracking	Cervidae		ISO		Producers	

### **Project Objectives:**

1. Register 46 cervidae producer premises
2. Identify 2500 head of elk with RFID tags.
3. Track 500 elk movement events between premises
4. Participate in the Northwest Pilot Project.
5. Populate the Utah Premises system with cattle, sheep and horse brand owners. This is to be done during the brand renewal process. (10,000 premises)

### **Evaluation Standards:**

1. 10,000 cattle, sheep, and horse premises registered
2. Associate brands with premises identification
3. 8 auction markets registered
4. 35 packing plants registered
5. 500 dairies registered
6. 46 cervid premises registered
7. 2500 elk identified with RFID tags
8. 500 elk movement events tracked

## Wyoming Animal Identification Project

**CA number:** 04-9156-0925-CA  
**Amount of CA:** \$361,929  
**Signature Date:** 09/24/2004  
**Coordinator:** Wyoming Livestock Board  
**Cooperators:**  
    **States –** Nebraska, Colorado  
    **Tribal –** n/a  
    **3<sup>rd</sup> Party –** Premier Sheep Supplies, Y-TEX Corp, Farnam Industries, Allflex Corp, AgInfoLink, AgTerra Industries, VoiceViewer Technology  
  
**Premises ID System:** Compliant Premises Registration System provided by Nebraska Dept of Agriculture  
**Agreement Type:** Premises Identification with Field Trial

### Wyoming - Cooperator's Synopsis of their Project

The Wyoming NAIS project is based on a proposal submitted by the Wyoming Livestock Board (WLSB). Wyoming will partner with neighboring States and private industry to develop the best-possible animal identification system for Wyoming producers. The State's goal is to integrate existing data from its current databases into a low-cost comprehensive Wyoming Premises Database. The basis for the database will be WLSB herd files, as well as brand recording and inspection records. In addition, the database will incorporate information from Wyoming Animal Health Department and private producer records.

The WLSB will also test whether existing brand inspection personnel and infrastructure can be used to track livestock that change ownership through both private treaty sales and livestock entering into interstate commerce via Wyoming livestock markets. The Wyoming project will focus more on the sheep industry to identify and test RFID tags and other technologies to individually identify sheep and lambs and address the many unique challenges that the sheep industry faces in implementing animal identification. The ultimate goal of the project is to demonstrate that livestock can be tracked without significantly changing the existing flow of commerce.

## **Field Trial Project Summary:**

Trial Type	Species	Animal ID Technology Type			Industry Segment	Other areas being tested/evaluated
		Existing	RFID	Other		
Animal ID	Sheep	Scrapie tags, visual ID	ISO	Retinal Scanning Group/lot GPS	Producer participants, UW, auction markets, feeders, packers	Retention of tags, supplemental ID technology, readers, data management technology
	Cattle	Visual ID	ISO	GPS	Producer participants, auction markets, feeders, backgrounders	Retention of tags, supplemental ID technology, readers, data management technology
Animal Tracking	Sheep & Cattle	Brands	ISO	GPS, Change of ownership, change of premise, movement into commerce		Inclusion of GPS coordinates, integration of brand inspection, electronic technology to accompany animals

### **Project Objectives:**

6. Evaluate ID devices for retention, readability and cost
7. Evaluate various ID reading/recording devices
8. Locate and evaluate “sheep friendly” tags and devices for sheep ID
9. Economic evaluation of expenses for producers and government entities
10. Evaluation of voice activated technology to record brand and animal information at brand inspection and transfer of data to central record storage
11. Design of method to electronically transfer animal ID movement info with animals to next location in place of current written brand inspections
12. Function of bar coded Premise ID card to input owner info at brand inspection
13. Movement tracking on change of premise or change of ownership
14. Tracking test exercises and simulations during the summer to find which methods and devices work most effectively before needed at the speed of commerce in fall shipping season
15. Evaluation of technology that will be effective in auction markets
16. Train brand inspectors on use of various devices and systems to capture brand inspection information electronically and to transfer info to central database; also train inspectors on devices to read and record individual animal identification

**Evaluation Standards:**

5. Be able to set up a simple yet comprehensive system to capture and transfer brand inspection information electronically into a central database in an effective and timely manner.
6. Evaluate and implement technologies that can read and record individual animal ID numbers in the field at the speed of commerce without major modifications to existing systems.
7. Evaluate technologies that may be able to augment current brand inspection forms and electronically transmit data necessary for transport of animals across state lines and into commerce.
8. Develop and implement producer education programs about animal ID and the technologies and systems that are available as well as benefits for producers. Evaluate devices used on the pilot projects to serve as a guide to producers in purchase of equipment and technology as the movement to mandatory use of RFID is implemented.